

Arguments begin on page 7 of this paper.

IN THE CLAIMS

Please amend the claims as follows:

Claim 1 (Currently Amended): A method of treating cancer in a patient in need ~~thereof of antitumoral immunotherapy~~ comprising[[,]] administering an effective amount of at least one compound ~~to the patient in an amount sufficient to treat the cancer; wherein the at least one compound is~~ selected from the group consisting of a MMP-2 metalloprotease; a fragment of said MMP-2 metalloprotease comprising a T epitope; ~~a fragment of said metalloprotease comprising a T epitope presented by MHC I; a fragment of said metalloprotease comprising a T epitope presented by MHC II;~~ a polynucleotide encoding said metalloprotease; a polynucleotide encoding said fragment of said MMP-2 metalloprotease comprising a T epitope presented by MHC I; and combinations thereof, wherein said compound is administered in an amount sufficient for inducing cytotoxic T lymphocytes directed against tumor cells expressing MMP-2.

Claim 2 (Currently Amended): An immunogenic peptide comprising a T epitope presented by MHC I, that ~~comprises~~ consists of a fragment of 8 to 11 consecutive amino acids of the MMP-2 metalloprotease which is capable of inducing a cytotoxic T lymphocyte response against tumor cells expressing MMP-2.

Claim 3 (Previously Presented): The immunogenic peptide as claimed in claim 2, wherein the fragment comprises the sequence GLPPDVQRV (SEQ ID NO: 1).

Claim 4 (Previously Presented): A polynucleotide encoding the peptide as claimed in claim 2.

Claim 5 (Previously Presented): A composition comprising at least one peptide as claimed in claim 2 and an adjuvant.

Claim 6 (Previously Presented): A method of treating cancer in a patient in need thereof comprising, administering an effective amount of the immunogenic peptide of claim 2 to the patient in an amount sufficient to treat the cancer.

Claim 7 (Previously Presented): A method of treating cancer in a patient in need thereof comprising, administering an effective amount of the immunogenic peptide of claim 3 to the patient in an amount sufficient to treat the cancer.

Claim 8 (Previously Presented): An isolated antigen-presenting cell expressing an MHC I molecule, wherein the isolated antigen-presenting cell is loaded, in vitro, with the peptide as claimed in claim 2.

Claim 9 (Previously Presented): An antigen-presenting cell expressing an MHC I molecule, wherein the antigen-presenting cell is transfected with a polynucleotide comprising a sequence encoding an immunogenic peptide as claimed in claim 2.

Claim 10 (Previously Presented): An antigen-presenting cell expressing an MHC I molecule, wherein the antigen-presenting cell is transfected with a polynucleotide comprising a sequence encoding an immunogenic peptide as claimed in claim 3.

Claim 11 (Currently Amended): A method of preparing cytotoxic T lymphocytes directed against the MMP-2 metalloprotease, comprising selecting, from cytotoxic T

lymphocytes taken from a patient suffering from melanoma, those cytotoxic T lymphocytes that recognize a compound selected from the group consisting of the MMP-2 protein and a fragment of the MMP-2 protein comprising a T epitope presented by MHC I, and multiplying, *in vitro*, the selected T lymphocytes.

Claim 12 (Previously Presented): A preparation of cytotoxic T lymphocytes directed against the MMP-2 metalloprotease prepared by the method of claim 11.

Claim 13 (Previously Presented): A composition comprising the peptide of claim 3 and an adjuvant.

Claim 14 (Previously Presented): The method of claim 1, wherein the cancer is melanoma.

Claim 15 (Previously Presented): The method of claim 6, wherein the cancer is melanoma.

Claim 16 (Previously Presented): The method of claim 7, wherein the cancer is melanoma.

Claim 17 (Previously Presented): A composition comprising the polynucleotide of claim 4 and an adjuvant.

Claim 18 (Previously Presented): An isolated antigen-presenting cell expressing an MCH I molecule, wherein the antigen-presenting cell is loaded, in vitro, with a peptide as claimed in claim 3.

Claim 19 (Previously Presented): A polynucleotide encoding the peptide of claim 3.